

Through Thick and Thin: The Ontology of Tape Music

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Abstract

The ontology of music is a lively and much debated branch of metaphysical philosophy. Most of the available literature focuses upon works of the Western classical tradition, however; as a result, the various challenges posed by tape compositions are either marginalised or ignored. Coupled with this is the familiar claim by some musicologists and philosophers that such works cannot be described as being music; one such philosopher, Linda Ferguson, claimed that tape compositions are ontologically distinct from scored musical works and, as a result, are “in search of their metaphysics” (Ferguson 1983). This paper will address such claims through an investigation of the ontology of tape music. It will be argued that such works share their metaphysical status with scored compositions and that the various differences can be ascribed to the “extent, depth, and saturation of their work-determinative properties” (Davies 2004: 26-27). Ultimately, it will be noted that there are some significant differences between these two art forms. Tape music is not “in search of its metaphysics”, however; it is merely lacking an accurate philosophical assessment.

1. Introduction

In 1983, Linda Ferguson attempted to compare and contrast pieces of tape music with works of the Western classical tradition (Ferguson 1983). In doing so, she made two fundamental observations; firstly, that tape works cannot be identified with musical scores and, secondly, that it is not possible to perform tape works since they are fixed onto a medium. These observations led her to conclude that tape compositions cannot be accurately described using the term *music* and that this form of artistic practice is subsequently: “in search of its metaphysics” (Ferguson 1983)¹.

The strength of Ferguson’s convictions may surprise, or even offend, the tape composer who typically works without need, or inclination, to develop a metaphysical rationale to support his or her actions². Despite this, Ferguson’s view is far from uncommon among philosophers of music, many of whom refuse to accept that works of this genre should be referred to as *genuine* pieces of music. Although Ferguson’s thesis is somewhat dated, the ideas that she presents remain prevalent; similar claims have surfaced in several recent publications that undermine (while stopping short of denying) the metaphysical status of tape works (Davies 2004, Godlovitch 1992, Kania 2005, Thom 1993). Perhaps more significantly, the vast majority of philosophical studies simply marginalise or completely ignore tape music; many focus exclusively upon works of the Western classical tradition and thus overlook the various challenges that tape compositions present³.

This paper aims to address this imbalance; in doing so, a variety of metaphysical (mainly ontological) theories regarding the nature of music will be presented and evaluated. Few of these are original and this brief survey is certainly not exhaustive⁴. This

¹ In recent years, the term “tape music” has been superseded by a number of alternatives; these include, computer music, acousmatic music, electronic music, kinetic music, plastic music, electroacoustic music, and so on. In order to address Ferguson’s argument, the term “tape” will be used throughout this paper.

² Trevor Wishart (1996) famously refused to engage with such arguments, preferring instead to use the term *sonic art* rather than *music*: “one problem I have had in my own musical career is the rejection by some musicians and musicologists of my work on the grounds that ‘it is not music’. To avoid getting into semantic quibbles, I have therefore entitled this book *On Sonic Art*” (Wishart 1996: 4).

³ Kania recently broadened the scope with an evaluation of rock and jazz (Kania 2005) and Gracyk has taken a similar approach regarding popular music (Gracyk 1997); unfortunately, however, such studies are relatively uncommon.

⁴ Most can be found in the writings of Davies (2004), Kania (2005), Levinson (1990), Kivy (1991, 1997), Thomasson (2004), Ingarden (1986), and Scruton (1999).

paper focuses specifically upon tape works, however, and the various challenges that they present. Initially, Ferguson's approach will be outlined; following this, several major ontological categories will be discussed in order to compare the ontological status of tape works with their scored counterparts. Ultimately, it will be noted that there are some significant differences between these two art forms. However, tape music is not "in search of its metaphysics"; it is merely lacking an accurate philosophical assessment.

2. Abstract or Concrete? An Ontological Approach

Linda Ferguson is primarily concerned with questions of ontology, the branch of metaphysical philosophy concerned with the nature of being or existence. Ontology is: "the study of what exists and the nature of the most fundamental categories into which those existents fall" (Rohrbaugh 2005: 1). The central questions for the musical ontologist are as follows: What sort of entities are musical works? How do they exist? Are they mental, physical, concrete, abstract, imaginary, or do they have some other mode of existence? Under what conditions does a musical work come into being? How do such entities maintain their being? Under what conditions do they cease to exist?

In this context, Ferguson's central argument is relatively straightforward; she claims that tape works *exist* in a manner that differs from the way in which works of the Western classical tradition exist. Her position may be summarised as follows: *musical* works have an *abstract* existence whereas *tape compositions* have a *concrete* existence:

the product of musical composition is inaudible and abstract, while the product of tape composition is audible and concrete... Performances [of scored musical works] particularize and concretize the abstract ideal of the composition. But tape compositions are not abstract ideals; they are already particularized and concretized, as are sculptures and films. (Ferguson 1983: 20)

In the statement above, Ferguson's use of the terms *concrete* and *abstract* is intended in the ontological sense. She concludes that musical works and tape compositions differ in terms of their modes of existence and therefore works that are characterised as being of one type or the other do not share the same metaphysical status. In other words: "tape composition is not music because it is in essence something other than music as it has been traditionally understood" (Ferguson 1983: 17). Before evaluating the ontology of tape works, it is worth exploring what Ferguson means when using the phrase

“traditionally understood”; the following section will therefore provide an introduction to some views of the ontology of (Western classical) music.

3. Musical Works as Abstract Entities

Ferguson claims that the product of musical composition is “inaudible and abstract” (Ferguson 1983: 20). This view may be somewhat surprising; common sense dictates that pieces of music are necessarily audible and, in some senses, concrete. For example, one may listen to a recording or performance of a work and, if one is so inclined, hold and read a copy of the musical score. Yet Ferguson, like many ontologists, notes that neither score nor performance can be directly identified with a given piece of music. This is because scores and performances exhibit various features that musical works do not share and as a result these entities are ontologically distinct. We will briefly consider this argument, starting with musical scores before evaluating performances.

Many ontologists have pointed out that scores are *not* musical works (Ingarden 1986, Levinson 1990, Goehr 1992, Kania 2005, Thomasson 2004, Wollheim 1980, Wolterstorff 1980); one can give three main reasons why this is not the case: firstly, a score contains many features that a performance does not contain and vice-versa; a score has a variety of visual properties, but does not share any sonic properties with the work (Kania 2005: 36). Secondly, it is common to talk about *the* score as if there were a single document that uniquely identifies the musical work; this is misleading. Scores, unlike the works to which they relate, are not unique; they can be copied endlessly and thus no individual score *is* the musical piece. One could destroy any version of the score without altering a single aspect of the related composition. Andrew Kania points out that there may be many *tokens* of a musical score yet no particular physical object which is *the* score (Kania 2005: 37). *The* score is a *type* of representation and, as Kania explains, it is best to avoid identifying score-types with musical works: “if we are to open the door to types, there are more plausible types with which to identify a musical work, such as a type of sonic event.” (Kania 2005: 37)⁵. Thirdly, although there is clearly a relationship between the work and the score, not all musical pieces are notated. Works of folk music, for example, often exist as a result of both oral and aural traditions, yet they continue to

⁵ The terms *type* and *token* are defined and discussed in detail below.

hold the same metaphysical status as their scored counterparts; scored music is not somehow more musical, or more physically endowed, than non-scored music.

A similar position may be taken with regard to performances; many ontologists have considered whether performances are identifiable with musical works. However, most have concluded that this is not the case; cancellation of a scheduled performance will fail to alter any part of a work. Likewise, when they are not cancelled, performances, invariably contain features that the work does not contain. These features may be essentially negligible, such as fluctuations in timbral detail or dynamics. However, they may be highly significant; mistakes such as out-of-time phrases, incorrect notes or other such errors frequently occur during a performance (Ingarden 1986). Such elements are not parts, or features, of the musical work. Instead, they belong exclusively to the performance. As a result, performances and scores both contain a variety of features that are not shared by the work; this fact prompts Goehr (1992) to ask the following question:

What kind of existence do works enjoy, given that they are: a) created b) performed many times in different places c) not exhaustively captured in notational form, yet d) intimately related to their performances and scores? (Goehr 1992: 3)

At this stage, one can begin to appreciate Ferguson's ontology of music; copies of scores and performances are concrete entities that have spatio-temporal features. One may hold a particular copy of the score⁶ and attend a specific performance. Works of music are abstract entities, however; there is no place in which the work of music can be directly encountered since it is not spatio-temporal. Instead, one merely encounters an *instance* of the work.

In order to concretise this point, Ferguson draws attention to the separate endeavours of composer and performer: "both engage in individual processes which result in products of different natures, the one purely conceptual, and abstract; the other, audible and concrete" (Ferguson 1983: 19). In other words, the act of composition is necessarily separate from the act of performance; a musical work requires a performance in order for the various abstract elements to be realised or concretised. This claim is supported by the vast majority of philosophers of music and Ferguson quotes several to

⁶ One may hold a token of the score-type and not *the* score itself.

bolster her argument:

Let us accept as helpful Leonard Meyer's explanation that a performance at once "actualizes and particularizes the potential information contained in the score." And let us also follow Edward Lippman in defining the musical composition as "a nonaudible entity that exists only as an object of intention," and further, that "Ontologically the musical work is a conceptual object; it is not an aesthetic object in a literal sense but in the extended sense of its meaning and implications, its associated imagery and sonorous realization.... The work is quite distinct from any of its performances and from the totality of them. (Ferguson 1983: 19)

Ferguson's approach to the ontology of scored music is relatively common; works are abstract and generic entities, whereas their various instances are concrete and particular. As demonstrated above, many philosophers agree with that works of the Western classical tradition have an *abstract* existence (Davies 2004, Ferguson 1983, Ingarden 1986, Kania 2005, Kivy 1997, Levinson 1990, Rohrbaugh 2005, Spier 2007, Scruton 1994b, Thom 1993, Wollheim 1980). There are many different sorts of abstract categories, however: universals, types, kinds, classes, and so on⁷; Ferguson does not specify which particular theory she adheres to; we will subsequently consider the most popular of these theories, the *type-token hypothesis*, as developed by Wollheim (1980).

The type-token hypothesis appears to fall somewhere in-between abstract and concrete categories of existence since it accommodates elements that are typically ascribed to both (Scruton 1994a: 84); on the one hand there are *types*; abstract, generalised things that do not have spatio-temporal properties. On the other hand there are individual instances of the type, known as their *tokens*; these entities have concrete physical properties and exist at a specific time and place. Scruton (1994) provides the following simple example to demonstrate the relationship between a type and its tokens:

If I refer to the Ford Cortina, I do not refer to one particular car but to a 'type' of car. The individual Cortinas are 'tokens' of this type... [The type can] be described and explained in terms of concrete processes in the spatio-temporal world. Nevertheless, there is no place where the Ford Cortina is. It remains aloof from the world of its tokens, just as numbers do. (Scruton: 1994a: 84-85).

One may apply the same terminology to the elements of a musical work; the work is a type, an abstract entity without particular spatio-temporal features. By contrast, scores,

⁷ Both Kania (2005) and Rohrbaugh (2005) claim that the difference between these categories are very subtle; Kania provides a detailed overview and ultimately assimilates them.

performances, recordings, and other such related entities, are all tokens of the type. One may note that the various copies of a score and performances of a work are unique, concrete entities; as a result, they may contain features that are not shared by the work itself.

In *Art and its Objects*, Wollheim (1980) explored the relationship between types and tokens. He noted that a type and the various tokens of the type are necessarily associated. They are not identical, however; tokens can be destroyed without affecting any aspect or element of a type. For example, a printed copy of a poem can be destroyed without affecting any features of the work; likewise, a poem will survive the cancellation of a planned recital. Despite this, Wollheim noted that the type-token distinction does not apply equally to all works of art. For example, an oil painting has just one token; the painted canvass. In this case, the token is again concrete and unique. Destruction of this entity would necessarily lead, however, to the destruction of the actual work.

Wollheim went on to note that tokens necessarily share certain properties with the type in question. For example, a musical work (type) should be just as loud as its various performances (token) and must contain the same sequence of notes. Thus, properties belonging to the type must be shared by all of the various tokens. The opposite does not always apply; tokens will invariably contain features that the type does not contain. For example, an instrumental performance may contain out-of-time phrases, incorrect notes, or any number of deviations from the instructions set out in the score; these features belong to the token, but not to the type:

something can qualify as a performance of a given piece despite containing imperfect renditions of features normally regarded as crucial to the work's identity. A less than accurate rendition of Beethoven's Symphony No. 5 may qualify as an instance of the work. A departure from the appropriately specified notes violates the work's integrity, thereby generating an error in performance, but not all such departures move so far from the piece that the attempt to perform it fails... not all of a work's identifying features will be present in all its instances, given that performances with mistakes qualify as among its instances. (Davies 2001: 46-47)

Kania appears to share this view, arguing that a work is always “tokened” (Kania 2005: 60) when a performer aims to follow the instructions provided by the composer, even if the different tokens differ significantly:

some theorists turned to a closer examination of the nature of performance... One of the things that came to light about performance during these discussions was that there is an intentional relationship between a performance and the composer's specification of the work the performance is of. A performance can only be of a particular work if the performers intend to follow the instructions that the composer set down as to be followed in performing that work. (Kania 2005: 60)

When discussing scored instrumental works, Linda Ferguson does not align herself with the type-token hypothesis. Instead, she states that musical works of the Western classical tradition have some sort of abstract existence: "The musical composition is not identical with any one performance of its score, nor with the sum of all possible performances, for its existence is general and abstract. A composition is not "used up" by repeated realizations, not consumed by "definitive" performances, nor deteriorated by inept ones..." (Ferguson 1983: 5). In this short statement, Ferguson clearly distinguishes between works, performances and scores. This distinction, as we shall discover in next section, is not applied to tape compositions, to which we will now turn our attention.

4. Tape Works as Concrete Entities: Some Ontological Inaccuracies

We are now in a position to consider Linda Ferguson's ontology of tape composition. Unlike scored instrumental works, which she believes to be fundamentally abstract, tape compositions are, according to Ferguson, concrete. Her rationale can be summarised as follows: tape compositions are not scored and as a result they cannot be performed. The sounds encountered when a tape work is presented have been pre-selected by the composer. As a result, there is no need for interpretative acts of performance and this invariably means that tape works are identical each time they are presented or instanced. For this reason, Ferguson concludes that tape works are not abstract entities: "they are already particularized and concretized, as are sculptures and films" (Ferguson 1983: 20).

Ferguson's attempt to associate tape composition with sculpture and film may appear intuitive; after all, tape composers frequently articulate the haptic, kinaesthetic, proprioceptive nature of their compositional acts in terms of crafting, shaping and sculpting sound in the studio, terms that have much in common with the creative acts and processes used in the plastic arts. In this context, Ferguson's association may be appropriate. Her intention is clearly different, however; Ferguson does not merely refer to

compositional acts or processes. Instead, she makes an ontological claim: “they are already particularized and concretized” (Ferguson 1983: 20). This claim goes beyond the mere creative processes employed during the creative acts and implies that tape compositions are actual physical entities in their own right. We will now consider whether there is any truth in this claim.

Unfortunately, Ferguson does not tell us what sort of physical, concretised thing, or entity, a tape composition might be. As a result, we must consider the three possibilities which Ferguson *might* have in mind: the physical medium upon which it is stored, a score (or a surrogate score) and a performance or instance in which the work is directly sounded; we will consider these three options in sequence.

When Ferguson compares the existence of the tape composition with that of the work of sculpture we gain a possible insight into her intended meaning. Works of sculpture are often assumed to be little more than physical things; they can be moved, bought or sold, and destruction of the constituent physical properties will invariably lead to a destruction of the work (Thomasson 2004: 2). In other words, one might assume there to be a direct relationship between the particular physical properties of a sculpture or painting and the properties of the work itself. This view, often referred to as the *physical-object hypothesis*⁸, has been subject to much criticism (Ingarden 1986, Johnston 1997, Levinson 1990, Thomasson 2004, Wollheim 1980, Wolterstorff 1980):

Many arguments have been raised both within aesthetics and in the literature on material constitution, against identifying statues, paintings, and other artefacts with their constituting matter since the two may have different identity or persistence conditions (i.e. the statue can survive the replacement of one of its fingers with a different piece of clay, while the lump of clay cannot survive such changes; and the clay can survive the reorganization of its parts into a ball, while the statue cannot); or different essential properties (the statue is essentially an artefact, created or at least selected by an artist, the lump of clay is not). (Thomasson 2004: 7 – 8)

Such arguments may suggest that Ferguson is incorrect in her assumption that a sculpture is a concrete entity. The problem is unresolved, however; many theorists dismiss the above claims as mere technicalities and Ferguson has the support of several notable theorists who take the moderate view that *some* works of art can be identified with physical objects (Wollheim 1980, Wolterstorff 1980); objects, such as sculptures and

⁸ This term was originally proposed by Wollheim (1980) but is now widely used in ontological writings.

paintings, are, in some senses, physical and unique. Many others are not, however; works of music, literature, poetry, film and tape composition can be *repeated* and thus may have many occurrences; in such cases there is no obvious physical or unique object that *is* the work. This is particularly true of musical arts since they present us with the clearest case of something that is not easily identified with a simple physical entity or object (Kania 2004: 43); as discussed above, a piece of music does not occupy a defined spatio-temporal region and therefore it cannot be moved, bought or sold in the same way as a painting or sculpture.

When comparing tape works with works of sculpture, it is possible that Ferguson is focusing her attention on the physical medium upon which the work of tape composition is ‘stored’ or ‘fixed’; she states that:

[the composer of tape music] works in the concrete rather than the abstract, directly with the sonorous matter of his art; he need not imagine time's passage as a progression of measures, for he works materially with time as lengths of tape. The tape composer, manipulates the audible physical reality of his object, as painters, sculptors, and (most aptly) filmmakers do their visible physical realities. (Ferguson 1983: 19)

If at this moment she is intending to identify the work with this particular piece of tape then she is surely making an ontological error.

There is clearly some sort of relationship between the physical medium and the finished work. The composer typically requires some means of fixing elements of the composition so that it can be heard and performed multiple times. In addition, some forms of media have objective qualities and we may consider whether they relate to the composition in any meaningful way. Certain relationships can be evidenced; early recording technologies can be directly manipulated to affect the sounds recorded onto them. For example, magnetic tape can be spliced and reordered or stretched and slowed down and vinyl disks can be revolved at varying speeds, manipulated and disfigured. These examples suggest that we can relate certain sonic properties to properties of the physical medium; as we manipulate those properties of medium, we may find isomorphic changes with the properties of the sounds fixed onto them. This suggests that correlations between tape works and the physical properties of the recording medium can be derived. Despite this, there are various problems in identifying a musical work with a physical

medium.

The physical medium upon which the work is stored is similar, in terms of its ontological status, to that of the musical score in the sense that although the medium may have objective qualities, these are often features that the music lacks. Likewise, the music will invariably have features that the medium lacks. This is essentially the same argument used to reject the physical reduction to scored materials (Kania 2005: 36). Ten Hoopen supports this view, claiming that the tape piece has a “perfect material existence” but claims that this objectivity becomes subjectivity as soon as the music is performed (Ten Hoopen 1997: 14). She considers this to be the *paradox* of tape music⁹. In addition, destruction of a single copy, or multiple copies, of a tape work will take nothing away from the existence of the work itself¹⁰. The copy is required to facilitate performance. The medium, which is fixed and unique, is, however, like the musical score, not directly identifiable with the work. One may subsequently argue that the medium is merely a token of the work and thus not identical with it.

The lack of musical scores may account for Ferguson’s initial suspicion of tape works; scores do (occasionally) exist but the act of notation rarely forms a part of the compositional process¹¹. In most cases, scores have been created in retrospect, often for the purpose of analysis or sound diffusion¹²; as a result, these entities rarely relate to the creative process in the same way as traditional scores. The tape composer does not require a musical score in order to arrange and prepare sound materials; instead, he or she works directly with sounds, choosing and manipulating sonic artefacts in order to fulfil a specific compositional intention.

⁹ Ten Hoopen uses the term *acousmatic music* instead of *tape music*; *acousmatic* refers to music that is composed on a fixed medium and performed using loudspeakers instead of live performers. The term implies that auditory focus takes precedence over other sensory factors and thus vision is not intended to form a purposeful part of the acousmatic experience. Despite this shift in emphasis, Ten Hoopen’s argument transfers directly to the current discussion.

¹⁰ Unless, of course, only one copy exists; in such a case, one could argue that the work *would* be destroyed. However, this would seem a strange stance to take when dealing with an artistic practice that developed alongside recording and reproduction technologies.

¹¹ For example, Rainer Wehinger’s listening score that accompanies György Ligeti’s *Artikulation* (1970); this score is not required in order for the piece to be performed or heard.

¹² Sound diffusion is “the real-time, usually manual, control of relative levels and spatial deployment during performance [of tape music]” (Harrison 1999: 1). In this context, a diffusion score provides a visual representation of some of the sonic content of the work usual with time delineated on the horizontal dimension. The sound diffuser is able to follow the development of the musical discourse by reading the score and thus make real-time adjustments to the levels and spatial deployment of the sounds.

The method of working ‘concretely’ with sound materials was defined by Pierre Schaeffer’s use of the term *musique concrète* (Schaeffer 1966). Schaeffer used the term *concrète* to imply that a composer is working *directly* with sounds; he contrasted this method with that of the instrumental composer who is typically working *indirectly*, or *abstractly*, engaging with a system of notion in order to instruct a musician how to create or perform a particular sound (Emmerson and Smalley 2001, Dack 2002, Schaeffer 1966)¹³.

Initially, Ferguson does appear to be referring Schaeffer when she claims that tape works are concrete entities¹⁴. Her intended meaning is significantly different, however. When using the term *concrete*, Pierre Schaeffer was not referring to the *being* or *existence* of musical works. Likewise, he was not concerned with the ontological status of a music entity. Instead, he was concerned with the compositional *processes* involved in the creation of a work and the way in which sound materials could be prepared and arranged. Thus, he was concerned with “the implication of “actuality”, of dealing with the “stuff” or “matter” directly presented” (Dack 2002: 4). By contrast, Ferguson uses the term *concrete* in the ontological sense; when she says that: “tape compositions are... particularized and concretized” (Ferguson 1983: 20) she is not merely referring to the method used during the compositional process but also to the way in which the work exists from that point onwards. As a result, Schaeffer and Ferguson have significantly different intentions.

Ferguson claims that the distinction between the compositional process and the performance process is no longer apparent:

To compose music has traditionally been, as Barthes put it, "to give to do." Since the late 1940s and the beginnings of tape composition, it no longer need mean that, although it usually does. We are concerned here with those cases where "to compose" means something other than "to give to do," since the tape composer does not ultimately provide symbolic formulae or directives. He works in the concrete rather than the abstract, directly with the sonorous matter of his art. (Ferguson 1983: 20)

¹³ Schaeffer intended the term *concrète* to be understood in a number of different ways; Dack (2002) provides a comprehensive overview of the various differences, noting that the specific meaning is often unclear since the term *concrete* can be used as both an adjective and a noun.

¹⁴ Ferguson references his involvement with *musique concrète* (1983: 21) but does not list any of his written works in her bibliography.

Ferguson claims that the direct manipulation of sounds offers a radical departure from traditional forms of musical composition: “the sonorous aspect of music has been traditionally understood to be the product of the process of performing, not the product of the process of composing” (Ferguson 1983: 19). With the above in mind, it is unsurprising that Ferguson does not view tape works as part of a performing tradition:

Just as the preparation of a motion picture may require an actor to “act,” so the preparation of a tape composition may require a musician to perform, but such a performance in either case is not integral to forms, nor is it a property of subsequent displays of the works. And in both cases, the final product is considerably more than a preservation of the images produced by the performances. (Ferguson 1983: 20)

Interestingly, Ferguson is not alone in this assumption; many ontologists have refused to accept that tape works can be performed. In the following statement, for example, Davies (2004) prefers to use the term *playback*:

Some kinds of works are created for playback, not for performance. The entire piece is stored as code and, when sounded, is retrieved in a mechanical fashion. Pieces of this kind are created for a particular storage medium and for the kind of decoder that can replay the work as sound... As archetypes, I mention Pierre Schaeffer’s *Étude Pathétique* (1948), one of the first examples of *musique concrète*. (Davies 2004: 25)

Others, such as Kania (2005), prefer to use the term *instance*:

Shortly after the Second World War, some classical composers began focusing on producing works that did not require any performance. Using technology developed to record and reproduce the sounds of performances, they began creating tapes that when played back produced sound events that could not be considered an accurate record of any performance occurring in the studio, in any sense. Any authentic copy of the master tape produced an authentic instance of the work when played back. (Kania 2005: 134-5)

Clearly, many ontologists are uncomfortable with the suggestion that tape works can be *performed*¹⁵. As a result, we must consider the relationship between the production of the

¹⁵ It is tempting to search for a clear definition of the term performance to see whether it can be rightfully applied to tape works. However, this ontology is not concerned with the development, or analysis, of terminology. Instead, it aims to delineate the various ontological features that characterise a traditional musical performance so that these can be compared with the presentation of the tape work. The actual term that is used, whether it is *performance*, *instance* or *playback*, is of little interest. Instead, we are concerned with ontological similarities or differences between traditional musical works and their tape music counterparts.

tape work and the product itself. Ferguson's claim that tape works are concrete appears to originate with her belief that each instance (or playback, or performance) contains *exactly* the same sounds as the previous instance; the sounds are fixed in the same way that the sculpture contains fixed or concrete physical materials. Thus, it appears that Ferguson's use of the term *concrete* should be understood within the context of *instances* or *playbacks* of the work. In this respect, Ferguson may note that there are no tokens of the work; instead there is one fixed, concretised sound entity.

Ferguson's entire argument centres upon the notion that the sounds used in a piece of tape music have been fixed. However, this is incorrect; the sounds that are heard during an instance are not *fixed*. Each time the tape composition is *instanced*, the specific sounds encountered are specific to that particular instance; they are not specific to the work. The sounds encountered during two *instances* of a tape work may appear identical in various respects. They invariably differ according to the influence of numerous factors, however; these include the attributes of the sound-system that is used, the specific configuration and colouration of the loudspeakers that present the sound, the acoustic influence of the concert hall or listening space, the position of the audience, the perceptual experiences of the listeners, and so on.

The above factors may seem marginal, even pedantic, to those unfamiliar with the tape music genre. Composers are well aware of the influence that such factors exert upon their musical works, however. To demonstrate this point, consider the concert hall in which tape compositions are often performed. Unlike acoustically-treated studios, in which tape music is invariably composed, concert halls are frequently large, reverberant spaces. Accordingly, the presentation of such works in a concert hall may, if left unchecked: 'have consequences for the perception of the musical content and structure' (Smalley 1991: 123); certain frequencies may be exaggerated or de-emphasised, the dynamic range may be distorted, certain articulations or gestures may be swamped with early or late reflections, the spatial image of the composition may be stretched or compressed, and so on. Factors such as these are far from marginal.

It might be tempting to view such factors as somehow extraneous to the composed work; the affect of the concert hall, for example, may be seen as something

that exists aside from the composition itself and is therefore not an intrinsic feature but rather an extrinsic one. This might be true in cases where composers are ignorant of such factors. This is rarely the case, however; tape music composers do not, for example, leave the transition from studio to concert hall to chance. Instead, they consider the concert hall during the compositional process and work with this in mind. For example, a composer may choose to leave an articulation or gesture free of synthetic reverberation in the knowledge that natural reverberation will be given during the concert presentation. Alternatively, a composer may produce a specific mix of a composition, recognising that a particular hall emphasises or de-emphasises certain frequencies more than others. Tape music is necessarily tailored to the space in which it is presented.

In the above context, Ferguson's claim, that tape music is fixed, is clearly flawed; it is, as Jonty Harrison points out, the support which is fixed and not the music:

[a] poor translation which causes confusion is "music on a fixed medium". In the French original (*musique de support*) the fixity is implicit rather than explicit – and it is worth pointing out that, even in English, it is the medium which is fixed, not the music. (Harrison 1999)

The sounds heard in a performance, or instance, of a tape composition are not fixed. A second performance will involve sounds that are identical in many of their properties but these are not the exact same sounds that were encountered in the previous performance. Ingarden makes a similar point when he refers to (traditional) musical works as *quasi-temporal* entities; the musical work does not exist in a defined point in time but does have qualities that resemble temporal dimensions. By contrast, the instance *does* exist at a particular point in time. As a result, time is implied in the work but is not literally given until the moment of performance (Ingarden 1986). One could say the same about the spatial dimensions of the work; the work is quasi-spatial since it has space-like features but these are only "concretised" during an instance or performance (Ingarden 1986).

One can clearly distinguish between the work and the performances, (or instances, or playbacks) of the work; the work is an *abstract* entity, and is quasi-spatio-temporal, whereas the instance is a *concrete* entity, and is literally spatio-temporal. This distinction applies to works of the classical tradition and works of tape music alike; it also applies to works of poetry, film, ballet and any other repeatable works of art. Although perhaps

technical in nature, this view is widely acknowledged and supported (Davies 2004, Ingarden 1986, Levinson 1990, Kania 2005, Thomasson 2004, Wollheim 1980, Wolterstorff 1980); repeatable works of art cannot be identified with any single repetition or group of repetitions and thus one cannot identify them with purely concrete entities.

5. Tape Works as Abstract Entities: Thick and Thin Descriptions

In the previous section we attempted to identify the work of tape composition with various concrete entities, including scores, performances and the medium upon which the work is ‘fixed’. Given the various problems encountered, it should be clear that Ferguson’s central thesis is, from an ontological perspective, incorrect. As a result, one may conclude that tape works, like their scored counterparts, are also abstract entities. We will now consider the abstract nature of the tape work and consider whether it is possible that both sorts of work share the same kind of abstract existence, despite their various differences.

Ferguson may claim that the type-token hypothesis does not apply to works of tape music since all of the various tokens will be essentially identical. However, as discussed above, this is not the case; the various tokens will be very similar but not the same.

Instead, one may note that many of Ferguson’s arguments can be resolved by applying the following distinction as proposed by Stephen Davies’ (2004): all repeatable works of art can be described as either *thick* or *thin* in terms of their constitutive features:

If it is thin, the work’s determinative properties are comparatively few in number and most of the qualities of a performance are aspects of the performer’s interpretation, not of the work as such. The thinner they are, the freer is the performer to control aspects of the performance... By contrast, if the work is thick, a great many of the properties heard in a performance are crucial to its identity and must be reproduced in a fully faithful rendition of the work. (Davies 2004: 20)

Whereas Ingarden claimed that performances fill-out areas of indeterminacy, Davies suggests that musical works are always thinner than the various performances that they receive; this is because it is not possible to notate every single performance instruction, no matter how detailed the score.

The idea that works are *thick* or *thin* has nothing to do with the quantity of sonic

materials that instantiate the performance; an orchestral work is not *thicker* than a solo piano recital, even though there are typically many more musicians generating musical sounds during an orchestral performance; this is because: “performances of thin works are as replete with acoustic information as are those of thick works, but, for performances of thin works, more of this information is referable to the performance than to the work” (Davies 2004: 20). Thus, Davies’ notion refers to the various ontological features that are instantiated by both the *type* and the *token*. If the type contains many of the same features as the token then the work is correctly described as being *thick*. Alternatively, if the type contains very few of the features contained in a performance then the work is very *thin*.

The notion that musical works are either thick or thin enables one to clearly distinguish between the type and the token and to relate the two by outlining areas of determinacy or indeterminacy. As a result, Davis’ distinction is particularly useful to the current thesis; firstly, as Rohrbaugh points out, it: “has the potential to defuse some apparent disagreement between type-theorists about which features of works are relevant to their identity, for in many cases, the answer will simply vary with the thickness of the works at issue” (Rohrbaugh 2005: 7). Secondly, it enables one to collect both tape works and scored instrumental works within the same category of existence; their differences can be articulated in terms of the relative thickness of tape works in contrast to the relative thinness of instrumental works.

Unfortunately, Davies appears to use this notion as a platform to launch certain value judgements (Davies 2004); he claims that *thicker* works are of more interest than thinner works, and that a thin work is only of interest during performance:

very thin works are not usually of interest in themselves and the prime candidate for appreciation is the performance. As pieces become thicker they become more worthy of interest. (Davies 2004: 22)

The idea that works are more or less worthy of attention according to their relative constitutive properties is indeed questionable. For example, imagine a folk melody that has been passed from generation to generation via oral traditions; this would be very thin, since a performer would be required to make numerous performance decisions in order to instance the work. By contrast, an highly complex piece, for example a work by

Ferneyhough in which few of the performance decisions are left un-specified, would be very thick; one may note that Ferneyhough's *Etudes Transcendantales* would, in some respects, be thicker than a given performance of the work since some aspects are too thick to be accurately played.

It appears from Davies' statement above that *Etudes Transcendantales* should necessarily be more worthy of interest than the folk work because there are fewer areas of indeterminacy. This is not necessarily the case, however; it depends upon ones criteria for judging worth; unfortunately, Davies fails to explain how or why something should be more or less worthy of our interest with respect to the thickness-thinness distinction. One could easily argue that the folk work is of more interest due to its *lack* of designated properties and that the Ferneyhough piece is much less worthy of our interest precisely because too many features are prescribed.

Despite such value judgements, the idea that works of music can be ontologically *thick* or *thin* is particularly interesting when used to discuss tape music. This is because, as discussed above, tape works contain relatively few areas of indeterminacy; most of their various features have been fully determined in the studio at the point of composition. In this context it is difficult to distinguish between the type and the various tokens of the type. Davies recognises this fact, noting that:

electronic works differ considerably from [works of the Western classical tradition] in the extent, depth, and saturation of their work-determinative properties... Because an electronic work is sounded directly when it is instanced, the properties defining it are at the same level of detail as those characterising performances. (Davies 2004: 26-27)

Davies is primarily concerned with electronic music. His argument may be applied to tape works, however, which are, like their electronic counterparts, (almost) as thick as their various performances. As we discussed above, performances of tape works invariably contain features that the related work does not contain; these include reverberations, frequency alterations, dynamic modifications, and so on. Despite this, tape works and their performances invariably share a large number of features; tape works do not require interpretation through performance and, as a result, are

appropriately viewed as ‘thick’ entities¹⁶.

The *thickness* of the tape work is an extremely important feature of the genre; the tape composer makes compositional decisions in the knowledge that *tokens* of the completed work will share many of their features with the *type*. The language of tape music reflects the possibilities that thick works invariably afford; in order to demonstrate this point, we will consider the tape composer’s frequent interest in timbre. Since it is extremely difficult to notate timbral details most traditional instrumental composers were primarily concerned with the evolution of pitch parameters over time (Wishart 1996)¹⁷. In this respect, timbre is subservient to pitch, and therefore the scored instrumental *type* is almost always thinner than its various *tokens*; the latter will display timbral details whereas the former will not. By contrast, the tape composer is able to control and shape the timbre of a sound with precision; as a result, the tape work (*type*) will necessarily share timbral details with each and every token. Perhaps it is little surprise that composers have harnessed the potential to explore the evolution of timbral detail over time and that this has become a fundamental characteristic of much tape music (Smalley 1997).

6. Conclusion

This paper has contributed to the discussion on the ontology of tape music. It has suggested that tape works have a fundamentally abstract mode of existence. By contrast, performances of tape works are necessarily concrete. Despite this fundamental ontological division, tape works and their performances have an extremely close relationship; tape music performers have relatively few interpretative choices and, as a result, tape works may be described using Stephen Davies’ term *thick*. Even so, differences between tape works and their performances should not be marginalised or

¹⁶ This situation is true, providing that we ignore marginal cases such as tape hiss, distortion or any other sounds that may occur during the performance that are not parts of the work. Another marginal case may occur if the playback system used to facilitate a performance was incapable of accurately presenting the various features of a given work; for example, by having an inaccurate frequency response. In this case, the token would be *thinner* than the work.

¹⁷ This statement should be understood in terms of instrumental works of the Western classical tradition; much modern music focuses upon timbral detail and, over the past sixty years, there have been many successful attempts at scoring such features.

overlooked; there are numerous variables which influence the way in which tape works are performed and these invariably impact upon the way in which tape music is received by an audience.

It is hoped that a greater understanding of the ontology of tape music may initiate further research into both tape music composition and the art of tape music performance; the unique relationship between tape works and their performances may well turn out to be a fundamental driver of compositional decisions and concerns and, likewise, if tape performances are concrete realisations of an abstract work then the notion of performance authenticity requires attention. Ultimately, it is hoped that a greater understanding of tape music ontology will bring music of this tradition into the wider philosophical arena; there can be little doubt that such music will continue to challenge, oppose and, in some cases, undermine established philosophical notions of musical works and their performances.

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